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Application No. 10/790,728
Reply dated: October 27, 2008
Reply to Office Action of August 25, 2008

Docket No.: 1630-0369PUS1

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AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for recording data on an optical disc comprising the steps of:

performing optimum power calibration on a test area of the optical disc to detect optimum writing power;

determining an optimum write strategy;

writing information on a data area with the optimum writing power and the optimum write strategy;

determining whether or not a running optimal power calibration (ROPC) is necessary, based on a B-level and ~~a~~an RF signal level detected in the writing step;

determining whether or not a current writing power is within a predetermined ROPC range set with reference to the detected optimum writing power; and

terminating the ROPC and performing a writing operation by increasing the writing power based on power update information when the current writing power is larger than an upper bound of the predetermined ROPC range.

2. (Previously Presented) The method according to claim 1, wherein the determining step comprises the steps of comparing a current writing position with previously stored position information corresponding to the predetermined ROPC range, and determining, based on the result of the comparison, whether or not the current writing power is within the predetermined ROPC range set with reference to the detected optimum writing power.

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3. (Previously Presented) The method according to claim 2, wherein the position information corresponding to the predetermined ROPC range is detected based on a disc type or a writing speed associated with the optical disc.

4. (Original) The method according to claim 2, wherein the current writing position is detected from absolute time in pre-groove data detected from a wobble signal generated in association with the optical signal.

5. (Previously Presented) The method according to claim 1, wherein the predetermined ROPC range of the writing power and/or the power update information is detected based on a disc type and a writing speed associated with the optical disc.

6. (Original) The method according to claim 1, wherein the power update information includes power information based on position information.

7. (Original) The method according to claim 2, wherein the power update information includes information about a variation in writing power at a predetermined writing interval.

8. (Previously Presented) The method according to claim 1, wherein the step of increasing the writing power based on the power update information is carried out when the writing operation is performed at a writing speed higher than an appropriate writing speed of the optical disc.

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9. (Currently Amended) An apparatus for recording data on an optical disc, comprising:

a performing unit for performing optimum power calibration on a test area of the optical disc to detect optimum writing power;

an optimum write strategy determining unit for determining an optimum write strategy;

a writing unit for writing information on a data area with the optimum writing power and the optimum write strategy;

a running optimal power calibration determining unit for determining whether or not a running optimal power calibration (ROPC) is necessary, based on a B-level and a an RF signal level detected in the writing unit;

a determining unit for determining, in a writing operation of the writing unit, whether or not a current writing power is within a predetermined ROPC range set with reference to optimum writing power; and

a controller for terminating the ROPC and increasing the writing power based on power update information when the current writing power is larger than an upper bound of the predetermined ROPC range.

10. (Original) The apparatus according to claim 9, further comprising:

means for detecting a current writing position from absolute time in pre-groove data detected from a wobble signal on the optical disc.

11. (Previously Presented) The apparatus according to claim 10, wherein the determining unit compares the current writing position with previously stored position information corresponding to the predetermined ROPC range, and determines, based on the

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result of the comparison, whether or not the current writing power is within the predetermined ROPC range set with reference to the optimum writing power.

12. (Previously Presented) The apparatus according to claim 9, wherein the previously stored position information of the predetermined RPOC range and/or the power update information is detected based on a disc type and/or a writing speed.

13. (Original) The apparatus according to claim 9, wherein the power update information includes power information correspond to position information, respectively.

14. (Previously Presented) The apparatus according to claim 9, wherein the power update information includes information about a variation of increase in writing power at a predetermined writing interval.

15. (Previously Presented) The apparatus according to claim 9, wherein increase of the writing power based on the power update information by the controller is carried out when the writing operation is performed at a writing speed higher than an appropriate writing speed of the optical disc.

16. (Previously Presented) The method according to claim 1, further comprising performing the writing operation with the writing power controlled to maintain a reflection signal level corresponding to the detected optimum writing power when the current writing power is within the predetermined ROPC range.

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17. (Previously Presented) The apparatus according to claim 9, wherein the controller controls the writing power to maintain a reflection signal level corresponding to the optimum writing power when the current writing power is within the predetermined ROPC range based on the result of the determining unit.

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